



FISH HABITAT PERMIT

FH18-III-0187

ISSUED: August 30, 2018

EXPIRES: Upon Removal of Bridge and
Rehabilitation of the Stream Crossing

Daniel Graham
Donlin Gold
4720 Business Park Blvd.
Suite G-25
Anchorage, AK 99503

Dear Mr. Graham:

RE: Crooked Creek Bridge
Crooked Creek (Stream No. 335-20-16600-2671)
Sections 3 and 4, T22N, R49W, Seward Meridian, Iditarod A-5
Location coordinates (WGS84): 62.0286 N 158.2567 W

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat, has reviewed your proposal to construct a bridge over Crooked Creek. We received an initial copy of your application on October 8, 2015, and received additional application information on December 29, 2017.

Project Description

Donlin Gold is proposing to construct the Donlin-Jungjuk Road connecting a proposed Jungjuk Port, on the Kuskokwim River, with the proposed mine site. The road design includes six (6) bridge crossings, one (1) of them on Crooked Creek, referred to as the Crooked Creek Bridge. This bridge would be a steel girder structure design. The span of the structure would be approximately 84 ft 7 in (25.8 m), 1.9 times the approximate bankfull stream width of 49.2 ft (15 m). To accommodate wide-design vehicles, including the autoclave transporter, the bridge surface is 24 ft 5 in (7.5 m) wide. The superstructure

would consist of pre-cast concrete panels supported by three lines of steel I-girders spaced at 8 ft 3 in (2.5 m).

Wire MSE retaining walls, designed by Big R Bridge, will be used to retain road and abutment fill at the abutments. Wire MSE wall retaining structures consist of a series of 9 ft wide 5 ft tall face panels with horizontal soil retention bottom mesh extending 5 ft deep. Wire used for the MSE face, bottom, and top caps, and tie-ins between lifts will be 8-gauge steel and the outward-facing surface panels of each MSE wall will consist of 4 x 8 in mesh. Fill will be graded to consist of material large enough to be retained by the 4 x 8 in mesh. The walls would be placed behind the piles or columns at the base of the bridge and would be extended to the road elevation at both abutments. Bridge abutments and footings will be protected by Class II rip rap armoring installed outside of OHW. Rip rap will be keyed to 0.5 ft (0.2 m) below the thalweg depth and into the stream banks on the upstream and downstream sides of the bridge. Final install depths would be determined on site during construction. All cross-drainage pipes installed within potential HHW will be embedded by 10% to aid fish passage and durability during high water events. Temporary bridges would be constructed outside of ordinary high water. Preliminary plans were included in the December 29, 2017 application.

Anadromous Fish Act

Crooked Creek has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). The creek in the area of your activity provides spawning and rearing habitat for Chinook and coho salmon, and spawning habitat for chum salmon. Resident fish species captured in the vicinity of your project include Dolly Varden, slimy sculpin, and Arctic grayling. Your project as proposed should not have adverse effects on anadromous fish or their habitat and should not obstruct the free passage of fish.

In accordance with AS 16.05.871(d), project approval is hereby given subject to the project description above with the following stipulations:

1. The bridge shall be constructed, operated, and maintained for the life of the structure such that free passage of fish is assured. Any obstruction to the free passage of fish shall be restored to the satisfaction of the Division of Habitat. The Division of Habitat shall be notified and approval granted by the Division of Habitat before any instream bridge maintenance activities occur.
2. Donlin Gold shall submit final plans and specifications to the Division of Habitat for review and approval, noting any deviations from the preliminary plan set submitted for this permit, prior to construction.

3. Donlin Gold shall provide plans for any diversion, dewatering, or bypass pumping needed for bridge installation for review and approval by the Division of Habitat before these activities occur.
4. Donlin Gold shall submit plans and specifications to the Division of Habitat for review and approval prior to the installation, maintenance and removal of any temporary bridge or culvert across Crooked Creek needed to maintain traffic around the work area during the installation of the new bridge.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

For the purpose of inspecting or monitoring compliance with any condition of this permit, you shall give an authorized representative of the state free and unobstructed access, at safe and reasonable times, to the permit site. You shall furnish whatever assistance and information as the authorized representative reasonably requires for monitoring and inspection purposes.

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which was a direct result of the failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this

provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Any questions or concerns about this permit may be directed to Habitat Biologist Maria Wessel at (907) 459-7281 or emailed to maria.wessel@alaska.gov.

Sincerely,

Sam Cotten, Commissioner



BY: Audra L. J. Brase, Regional Supervisor
Division of Habitat
Alaska Department of Fish and Game

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